

**What is Claimed is:**

1. An information recommendation apparatus  
comprising:

recommendation means of selecting and recommending contents coincident with or similar to conditions input by condition input means of inputting said conditions represented by predetermined items and attribute values corresponding thereto designated through the terminal of a user via the Internet, from among contents formed of plural pieces of data having plural items and attribute values corresponding thereto and stored in a content database in which said contents are registered by registration means, wherein

said recommended contents are output to said terminal by output means via said Internet.

2. An information recommendation apparatus  
comprising:

recommendation means of selecting and recommending contents coincident with or similar to conditions input by condition input means of inputting said conditions represented by predetermined items and attribute values corresponding thereto, from among contents formed of plural pieces of data having plural items and attribute values corresponding thereto and stored in a content database in which said contents are registered by registration means,

wherein

said recommended contents are output by output means,  
and

said items are subjective items resulting from human decisions and impressions, and/or objective items free from human decisions and impressions.

3. An information recommendation apparatus  
comprising:

recommendation means of selecting and recommending contents coincident with or similar to conditions input by condition input means of inputting said conditions represented by predetermined items and attribute values corresponding thereto, from among contents formed of plural pieces of data having plural items and attribute values corresponding thereto and stored in a content database in which said contents are registered by registration means, wherein

said recommended contents are output by output means,  
and

a scoring method for scoring points to each of said items depending on the degree of similarity is predetermined in order to judge the similarity between said conditions to be input and each of said contents.

4. An information recommendation apparatus  
comprising:

recommenda- tion means of selecting and recommending contents coincident with or similar to conditions input by condition input means of inputting said conditions represented by predetermined items and attribute values corresponding thereto, from among contents formed of plural pieces of data having plural items and attribute values corresponding thereto and stored in a content database in which said contents are registered by registration means, wherein

said recommended contents are output by output means, and

a thesaurus is used to judge the similarity between said conditions to be input and each of said contents in the case when said attribute values are represented by words.

5. An information recommendation apparatus comprising:

recommenda- tion means of selecting and recommending contents coincident with or similar to conditions input by condition input means of inputting said conditions represented by predetermined items and attribute values corresponding thereto, from among contents formed of plural pieces of data having plural items and attribute values corresponding thereto and stored in a content database in which said contents are registered by registration means,

wherein

said recommended contents are output by output means,  
and

the number of times a user attempting to receive  
recommendation receives recommendation or the content of  
the recommendation is determined depending on the number of  
times said user carried out registration by using said  
content registration means.

6. An information recommendation apparatus according  
to claim 5, wherein the number of registration times of  
said user is determined (a) by checking the access history  
of said user with respect to registration or (b) by  
assigning the user ID of the registrant to said content and  
by using said user ID.

7. An information recommendation apparatus  
comprising:

recommendation means of selecting and recommending  
contents coincident with or similar to conditions input by  
condition input means of inputting said conditions  
represented by predetermined items and attribute values  
corresponding thereto, from among contents formed of plural  
pieces of data having plural items and attribute values  
corresponding thereto and stored in a content database in  
which said contents are registered by registration means,  
wherein

said recommended contents are output by output means,  
and

said conditions input to said condition input means  
are conditions extracted by condition extraction means of  
automatically extracting said conditions.

8. An information recommendation apparatus according  
to claim 7, wherein the conditions to be input to said  
condition input means are those extracted on the basis of  
contents registered in the past by a user who will receive  
recommendation.

9. An information recommendation apparatus according  
to claim 7, wherein the characteristic of each item of said  
user is obtained by calculation each time said user  
registers said data.

10. An information recommendation apparatus according  
to claim 7, wherein the conditions to be input to said  
condition input means are extracted on the basis of  
contents recommended in the past to a user who is  
attempting to receive recommendation or on the basis of  
contents recommended to and specified by said user.

11. An information recommendation apparatus according  
to claim 10, wherein the characteristic of each item of  
said user is obtained by calculation by characteristic  
calculation means each time said user receives  
recommendation or each time said user receives

recommendation and specifies the contents.

12. An information recommendation apparatus according to claim 8 or 10, wherein, when said conditions are extracted from said contents, said conditions having tendencies opposite to those of said contents are extracted.

13. An information recommendation apparatus according to claim 7, wherein said condition input means inputs said externally input conditions and said automatically extracted conditions, and

said recommendation means selects contents coincident with or similar to said automatically extracted conditions from only said contents conforming to said externally input conditions and recommend said selected contents.

14. An information recommendation apparatus comprising:

recommendation means of selecting and recommending contents coincident with or similar to conditions input by condition input means of inputting said conditions represented by predetermined items and attribute values corresponding thereto, from among contents formed of plural pieces of data having plural items and attribute values corresponding thereto and stored in a content database in which said contents are registered by registration means, wherein

said recommended contents are output by output means,

on the basis of contents registered in the past by a user attempting to receive recommendation, contents recommended to said user or contents recommended to and specified by said user, characteristic information calculation means of obtaining characteristic information by calculation for each of said items and storing said characteristic information obtains said characteristic information by calculation and stores said characteristic information, and

in the case of recommendation to a specific user, said recommendation means specifies other users whose characteristic information is coincident or similar to said characteristic information of said specific user by using said stored characteristic information, and selects and recommends contents registered in the past by said other users, contents recommended to said other users or contents recommended to and specified by said other users.

15. An information recommendation apparatus comprising:

recommendation means of selecting and recommending recipes coincident with or similar to conditions input by condition input means of inputting said conditions represented by predetermined items and attribute values corresponding thereto from a content database, that is, from among said recipes formed of plural pieces of data

having plural items and attribute values corresponding thereto and stored in said content database in which said recipes are registered by registration means, wherein

said recommended contents are output by output means, said content database is classified into recipe groups for dishes taken for a meal, and

when said conditions are input, said recommendation means determines a recipe coincident with or most similar to said conditions, and selects and determines all or part of recipes other than said determined recipe.

16. An information recommendation apparatus comprising:

recommendation means of selecting and recommending contents coincident with or similar to conditions input by condition input means of inputting said conditions represented by predetermined items and attribute values corresponding thereto, from among contents formed of plural pieces of data having plural items and attribute values corresponding thereto and stored in a content database in which said contents are registered by registration means, wherein

said recommended contents are output by output means, on the basis of contents registered in the past by a user attempting to receive recommendation, contents recommended to said user or contents recommended to and



specified by said user, characteristic information calculation means of obtaining characteristic information by calculation for each of said items and storing said characteristic information obtains said characteristic information by calculation and stores said characteristic information,

while various characteristics regarding said user have been input, type information calculation means of using said characteristic information obtained for each of said items by calculation for each characteristic as said type information, and

type judgment means judges the type of said user attempting to receive recommendation by comparing said characteristic information of said user attempting to receive recommendation with said type information.

17. An information recommendation apparatus comprising:

recommendation means of selecting and recommending contents coincident with or similar to conditions input by condition input means of inputting said conditions represented by predetermined items and attribute values corresponding thereto, from among contents formed of plural pieces of data having plural items and attribute values corresponding thereto and stored in a content database in which said contents are registered by registration means,

wherein

said recommended contents are output by output means,  
and

among advertisements stored in an advertisement  
database for storing plural advertisements having related  
information having the same configuration as those of said  
items and said attribute values in said contents,  
advertisements coincident with or similar to said input  
conditions are specified by advertisement specifying means.

18. An information recommendation apparatus  
comprising:

recommendation means of selecting and recommending  
contents coincident with or similar to conditions input by  
condition input means of inputting said conditions  
represented by predetermined items and attribute values  
corresponding thereto, from among contents formed of plural  
pieces of data having plural items and attribute values  
corresponding thereto and stored in a content database in  
which said contents are registered by registration means,  
wherein

said recommended contents are output by output means,  
and

among advertisements stored in an advertisement  
database for storing plural advertisements having related  
information having the same configuration as those of said

item and said attribute value in said contents, on the basis of contents registered in the past by a user attempting to receive recommendation, contents recommended to said user or contents recommended to and specified by said user, said advertisement, which is similar to the characteristic information of each item for said user and is obtained by calculation and stored, is specified by advertisement specifying means.

19. An information recommendation apparatus according to claim 17 or 18, wherein

the number of times said advertisement is specified is counted by an advertisement counter, and

an advertisement rate is charged depending on the count value of said advertisement counter.

Sub Q49 → 20. An information recommendation apparatus according to one of claims 1 to 6 and 13 to 19, wherein said condition input means inputs said conditions by using a one-dimensional or two-dimensional interface.

21. An information recommendation apparatus according to one of claims 1 to 19, wherein said recommendation means does not recommend said contents recommended to a user in a predetermined period in the past to said user again.

22. An information recommendation apparatus according to one of claims 1, 2, 5 to 19, wherein said recommendation means selects and recommends contents including a character

Sub A<sup>49</sup> → string coincident with the character string included in said input conditions from said content database.

23. An information recommendation apparatus comprising:

from among contents formed of plural pieces of data having plural items and attribute values corresponding thereto and stored in a content database in which said contents are registered by registration means,

recommendation means, in the case when recommendation is performed to said user having an input user ID, of specifying other users whose characteristic information is coincident or similar to said characteristic information of said user having said user ID by using said characteristic information, and of selecting and recommending only the contents not recommended to said user having said user ID or only the contents recommended to but not specified by said user from among contents registered in the past by said specified user, contents recommended to said user or contents recommended to and specified by said user,

wherein said recommended contents are output by output means, and

said characteristic information is obtained by calculation for each item and stored by characteristic information calculation means on the basis of contents registered in the past by each user attempting to receive

recommendation, contents recommended to said user or contents recommended to and specified by said user.

24. An information recommendation system comprising:

a content database for storing contents formed of plural pieces of data having plural items and attribute values corresponding thereto;

content registration means of registering said contents in said content database;

condition input means of inputting conditions represented by predetermined items and attribute values via the Internet when said conditions are designated through the terminal of a user;

recommendation means of selecting and recommending contents coincident with or similar to said input conditions from said content database; and

output means of outputting said recommended contents to said terminal via said Internet.

25. An information recommendation system comprising:

a content database for storing contents formed of plural pieces of data having plural items and attribute values corresponding thereto;

content registration means of registering said contents in said content database;

condition input means of inputting conditions represented by predetermined items and attribute values;



27. An information recommendation system comprising:  
a content database for storing contents formed of  
plural pieces of data having plural items and attribute  
values corresponding thereto;

content registration means of registering said contents in said content database;

condition input means of inputting conditions  
represented by predetermined items and attribute values;

recommendation means of selecting and recommending contents coincident with or similar to said input conditions from said content database; and

output means of outputting said recommended contents,  
wherein

a thesaurus is used to judge the similarity between said conditions to be input and each of said contents in the case when said attribute values are represented by words.

28. An information recommendation system comprising:  
a content database for storing contents formed of plural pieces of data having plural items and attribute values corresponding thereto;

content registration means of registering said contents in said content database;

condition input means of inputting conditions  
represented by predetermined items and attribute values;







characteristic information of said specific user by using said stored characteristic information, and selects and recommends contents registered in the past by said other users, contents recommended to said other users or contents recommended to and specified by said other users.

31. An information recommendation system comprising:

a content database for storing recipes formed of plural pieces of data having plural items and attribute values corresponding thereto;

content registration means of registering said recipes in said content database;

condition input means of inputting conditions represented by predetermined items and attribute values;

recommendation means of selecting and recommending recipes coincident with or similar to said input conditions from said content database; and

output means of outputting said recommended contents, wherein

said content database is classified into recipe groups for dishes taken for a meal, and

when said conditions are input, said recommendation means determines a recipe coincident with or most similar to said conditions, and selects and determines all or part of recipes other than said determined recipe.

32. An information recommendation system comprising:





content registration means of registering said contents in said content database;

condition input means of inputting conditions  
represented by predetermined items and attribute values;

recommendation means of selecting and recommending  
contents coincident with or similar to said input  
conditions from said content database;

output means of outputting said recommended contents;

advertisement database for storing plural advertisements having related information having the same configuration as those of said items and said attribute values in said contents; and

advertisement specifying means of specifying an advertisement, which is similar to the characteristic information of each item for a user and obtained by calculation and stored on the basis of contents registered in the past by said user attempting to receive recommendation, contents recommended to said user or contents recommended to and specified by said user, among said advertisements stored in said advertisement database.

35. An information recommendation system comprising:

a content database for storing contents formed of plural pieces of data having plural items and attribute values corresponding thereto;

content registration means of registering said

contents in said content database;

characteristic information calculation means of obtaining characteristic information by calculation for each of said items and storing said characteristic information on the basis of contents registered in the past by a user attempting to receive recommendation, contents recommended to said user or contents recommended to and specified by said user;

recommendation means, in the case when recommendation is performed to said user having an input user ID, of specifying other users whose characteristic information is coincident with or similar to said characteristic information to said user having said user ID by using stored characteristic information, and of selecting and recommending only the contents not recommended to said user having said user ID or the contents recommended to but not specified by said user from among contents registered in the past by said specified user, contents recommended to said user or contents recommended to and specified by said user, in said content database; and

output means of outputting said recommended contents.

36. A program, in an information recommendation apparatus according to claim 1, for making a computer function as all or part of recommendation means of selecting and recommending contents coincident with or

similar to conditions input by condition input means of inputting said conditions represented by predetermined items and attribute values corresponding thereto designated through the terminal of a user via the Internet, from among contents formed of plural pieces of data having plural items and attribute values corresponding thereto and stored in a content database in which said contents are registered by registration means.

Sub Q50 → 37. A program, in an information recommendation apparatus according to one of claims 2 to 14 and 16 to 18, for making a computer function as all or part of recommendation means of selecting and recommending contents coincident with or similar to conditions input by condition input means of inputting said conditions represented by predetermined items and attribute values corresponding thereto, from among contents formed of plural pieces of data having plural items and attribute values corresponding thereto and stored in a content database in which said contents are registered by registration means.

38. A program, in an information recommendation apparatus according to claim 15, for making a computer function as all or part of recommendation means of selecting and recommending recipes coincident with or similar to conditions input by condition input means of inputting said conditions represented by predetermined

items and attribute values corresponding thereto, from among said recipes formed of plural pieces of data having plural items and attribute values corresponding thereto and stored in a content database in which said recipes are registered by registration means.

39. A program, in an information recommendation apparatus according to claim 23, for making a computer function as all or part of recommendation means, in the case when recommendation is performed to said user having an input user ID, of specifying other users whose characteristic information coincident with or similar to said characteristic information to said user having said user ID by using characteristic information, and of selecting and recommending only the contents not recommended to said user having said user ID or the contents recommended to but not specified by said user from among contents registered in the past by said specified user, contents recommended to said user or contents recommended to and specified by said user, from among contents formed of plural pieces of data having plural items and attribute values corresponding thereto and stored in a content database in which said contents are registered by registration means.